

Applicant respectfully submits the following comments.

Claim 1 as amended is directed to an optical cross-connect device including at least one shelf having a plurality of guide rails and a switch motherboard disposed at a rear end of the shelf. At least one electric crosspoint switch is disposed on an outer surface of the switch motherboard and a plurality of switch connectors positioned on a front surface of the switch motherboard. The device also includes a plurality of optical transceiver boards mounted along the guide rails. The optical transceiver has a transceiver connector for connecting to a different one of the switch connectors positioned on the front surface of the switch motherboard.

Hsieh et al., as understood by Applicant, relates to a programmable backplane that includes a motherboard having slots for receiving printed circuit boards. The device may be used for electronic systems such as personal computers that include several printed circuit boards that communicate with one another through the backplane.

As read by Applicant, Van Deventer relates to an interconnection apparatus having an electrical or optical signal bus. The apparatus includes a rack structure that is subdivided into an input board, a backplane and an output board. The backplane is provided with a row of N module positions for plugging in a circuit module.

Cannella et al., are understood by Applicant, relates to a reconfigurable connectorization panel assembly for a circuit board housing rack for cable television headend equipment.

Applicant respectfully submits that the alleged combination of references fails to provide the disclosure, suggestion, or motivation that would have made the instant claims

obvious. It is respectfully submitted that the Applicant's teachings that are being used in an improper hindsight rejection as a basis for alleging that the combination provides this motivation to an artisan. The combination fails to provide any such suggestion, and the skill in the art at the time of the invention would not have gleaned anything from the combination so as to make any of the instant claims obvious.

The Court of Appeals for the Federal Circuit has stated that:

The examiner must show reasons that the skilled artisan, **confronted with the same problems** as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

In Re Denis Rouffet, 47 USPQ.2d 1453, 1457-58 (Fed. Cir. 1998) (emphasis added).

The Office Action fails to meet this requirement. Nothing found in the reference cited in the Office Action addresses the **same problems** of the prior art solved by the present invention as defined in Claim 1. The features of Claim 1 address the need to a novel packaging system that minimizes the size of the overall layout and maximizes the workable volume of the optical cross-connect device (see page 3, lines 2-4).

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In re Fritch, 972 F.2d 1260, 1266, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992)

In this regard, the Office Action points to various advantages and benefits of the present invention, which are described in the specification, as motivation to combine. For example, as discussed above, one aspect of the present invention as defined by Claim 1

provides a novel optical cross-connect packaging system. Nothing found in the cited references address such a need.

Moreover, the Office Action's reliance on the present inventions teaches is improper. See *In re Wertheim*, 191 USPQ 90, 102 (C.C.P.A. 1976) (Applicant's own disclosures cannot be used to support a rejection of the claims absent some admission that matter disclosed in the specification is in the prior art.).

In addition, the Federal Circuit has also stated:

. . . rejecting patents solely by finding **prior art corollaries** for the claimed elements would permit an examiner to use the claimed invention itself as a **blueprint** for piecing together elements in the prior art to defeat the patentability of the claimed invention.

See *In Re Denis Rouffet*.

In the present situation, the Office Action appears to be using the claimed invention as a blueprint, which is improper. In particular, the Office Action has merely located references that may have use similar elements and has taken those terms out of context in attempt to piece together various elements using the present claims as a blueprint. This approach was specifically rejected in *Ex parte Clapp*, 227 USPQ 972, 973 (B.P.A.I. 1985):

In the instant application, the examiner has done little more than cite references to show that one or more elements or subcombinations thereof, when each is viewed in a vacuum, is known. The claimed invention, however, is clearly directed to a combination of elements. That is to say, appellant does not claim that he has invented one or more new elements but has presented claims to a new combination of elements. To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references

In order to establish a *prima facie* case of obviousness, the rationale to modify or combine the prior art must be expressly or impliedly contained in the prior art or reasoned from knowledge generally available to a person of ordinary skill in the art (*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Applicant respectfully submits that such rationale is not present in the teachings of the references and thus the claims would not have been obvious to a person of ordinary skill in the art at the time of invention.

With regard to the possibility that the references could have been combined to result in a modification of the references as alleged, Applicant respectfully submit that it was held by the Court of Appeals in the case of *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992) that:

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so. Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In the present case, it is respectfully submitted that the teachings of the combination of references do not overcome the standard of establishing obviousness as exemplified in *Fritch*.

Accordingly, it is respectfully submitted that the rejection of claims 1-12 should be withdrawn.

In view of the foregoing amendments and remarks, Applicant respectfully requests

favorable reconsideration and early passage to issue of the present application.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to kindly telephone the undersigned telephone number listed below. If there are any fees due and owing, please charge Deposit Account No. 502-470.

Respectfully submitted,

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Appendix of Claim Amendments

1. (Amended) An optical cross-connect device, comprising:
at least one shelf having a plurality of guide rails running in parallel thereon;
a switch motherboard disposed at the rear end of said shelf;
at least one electric crosspoint switch disposed on the outer surface of said switch
motherboard;
a plurality of switch connectors positioned on the front surface of said switch
motherboard; and,
a plurality of optical transceiver boards mounted along said guide rails of said shelf,
said optical transceiver having a transceiver connector for connecting to a different one of
said switch connectors positioned on the front surface of said switch motherboard.

2. (Amended) The device according to claim 1, wherein said electric
crosspoint switch is disposed at the front center portion of said switch motherboard, and
wherein a multiple array of said switch connectors are disposed near said electric
crosspoint switch.

7. (Amended) An optical cross-connect device, comprising:

at least one shelf having a plurality of guide rails running in parallel thereon;

a switch motherboard disposed at the rear end of said shelf;

at least one electric crosspoint switch disposed on the outer surface of said switch motherboard;

at least one array of switch connectors disposed on the outer surface of said switch motherboard; and,

a plurality of optical transceiver boards slidably mounted along said guide rails of said shelf to enable said optical transceiver board to be electrically coupled to one of the plurality of said switch connectors.

8. (Amended) The device according to claim 7, wherein said electric crosspoint switch is disposed at the front center portion of said switch motherboard.